

Exhibit D

PaineWebber EDGE Trading

Release 1.0 Functional Specification

Document Version 1.

December 10, 1998

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1**Introduction**

The purpose of this document is to define the functionality of the pages that will constitute Release 1.0 of online trading via the PaineWebber EDGE Internet site. These pages and their requirements are also important for the work required on the backend of the service where the trade moves from the Internet into PaineWebber for processing.

Reality Online Inc. is a wholly owned subsidiary of Reuters and is in the business of creating Internet online trading sites for brokerage firms and leveraging Reuters news and financial data to add value to those sites. Reality has been working closely with PaineWebber over the last two years to define, develop and deploy the EDGE.

1.1. Reality Online Contacts

Rick Bunker, President. 610-650-8600 x8508. Handles the business issues between PaineWebber and Reality Online. Rick's email address is rbunker@money.net.

Eric Lee Smith, Vice President of Software Design. 215-844-9082. Eric handles the user-interface and overall design and presentation requirements for new Internet initiatives. Eric's email address is docsmith@ix.netcom.com.

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Michelle Frank, Vice President of Client Services, 610-650-8600 x8335 Michelle's email address is mfrank@money.net.

1.2. PaineWebber Contacts

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Tom McCarthy, Associate Product Manager, 201-902-4016. Tom is in charge of the next version of the EDGE and is also working with the online trading effort. Tom's email is tmccarth@painewebber.com.

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1.3. Document Revision History

Release 1.0. October 6, 1998 – Preliminary Draft for review.

Release 1.1 October 19, 1998 – Secondary release for review. Converted trading matrices to Valid Trade tables, added Error Messages section, included additional content in the Edit section, general cleanup.

Release 1.2 October 28, 1998 – Third release. Added edits as per PaineWebber request (Section 5 of R. Koday email dated October 20, 1998. Modify/Cancel Order section designed and added (Page 43). Added Help page screen shot (Figure 32 - Help Page). Added Delayed Quote screen shot (Figure 7 - Delayed Quote Page).

Release 1.3 November 2, 1998 – Replace screenshots of Stock Trading pages, Stock Wizard pages, Cancel & Replace recap page.

Release 1.4 December 10, 1998 - General Updates to all sections to bring the Spec up-to-date with requested changes to the software. All screenshots with the exception of help have been replaced. The Error Messages section has been updated to include the Cancel area. Since this document only addresses Version 1.0, all references to Mutual Fund Trading have been removed.

2. Project Requirements

The feature set and issues listed below are Reality's understanding of the requirements for the project release 1.0.

1. Audience. Access to EDGE Trading¹ will be restricted to those clients that have a PAA account² and access to the EDGE. The audience may be widened in the future.
2. Access. If the user has an EDGE account and a PAA account and they're enrolled for online trading, then the EDGE Trading link will appear on the navigation bar. This is the only navigation method to get to the EDGE Trading feature. PaineWebber has also requested the ability to add and remove the Demo trade links from the navigation bar so those non-online trading users can view the trading feature.
3. Accounts. The user will be able to trade through their cash and/or margin accounts.
4. Securities. The user will be able to buy and sell stocks in Release 1.0 of EDGE trading, with mutual funds included in Release 1.1. Important: This document shows the screen designs for Release 1.0.
5. No Short Sales. At least for Release 1.0.
6. No options trading. At least for Release 1.0.
7. PAA account holders are granted a certain number of trades that they may execute via the EDGE. The number of trades they receive depends on their asset level. PAA is a fee-based account and thus a PAA client is not charged for a number of trades, which varies by asset level.
8. Trades made without PAA credits are not free. The amount to be charged is a policy to be set by PaineWebber. If a PAA customer runs out of trade credits then they are charged for the trades above the limit.
9. Cancel. The user will be able to cancel perform a cancel, partial cancel, or cancel/replace.
10. Ease of use is key. The design presented in this document goes to great lengths to make the site easy to use. Step-by-step "wizards" are presented to make it easy to learn. Also included will be online help and demo trades.
11. EDGE Trading has the same look and feel as the other features of the EDGE.
12. All software will be Y2K compliant.³
13. An EDGE trading account can be associated with more than one EDGE registration ID, however only one ID can access the account at a time. In other words, two people can't trade simultaneously in the same online account.
14. Listed Equity Symbols, for purposes of Trading, are symbols of 3 or less characters. Symbols containing more than 3 characters will be considered OTC Equities.

¹ EDGE Trading is the working title for the feature and is used throughout this document rather than online trading.

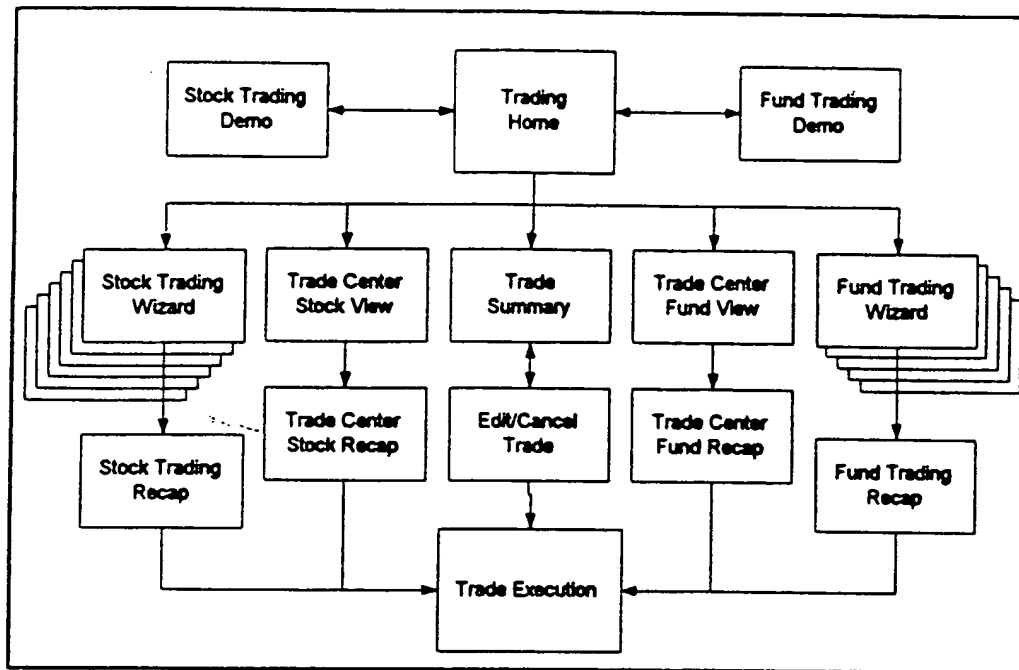
² Premier Asset Account.

³ Year 2000 compliant.

2 EDGE Trading Release 1

2.1 Trading Section Structure

2.2 Structure Diagram



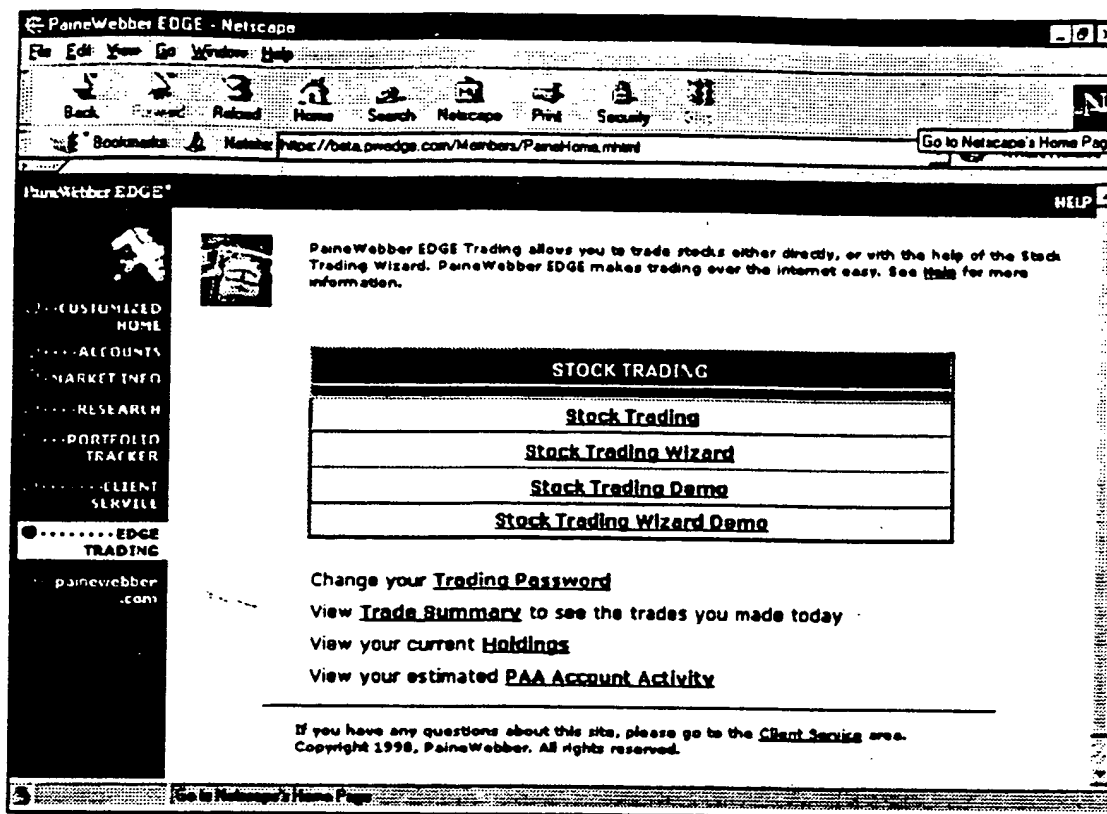
□ Figure 1 –Structure Diagram

2.3 Trading Pages Summary

1. Trading Home. The user sees when they enter the EDGE Trading section.
2. Trade Summary. This section shows the trades performed today and open orders.
3. Stock Trading Wizard. This section divides the trading process into six steps and shows them one at a time. Intended for new users.
4. Trading Demo Pages. For stock trading and the stock wizard.
5. Trade Execution. This is the passage of the trade from the EDGE front-end to the PaineWebber backend systems for processing. It returns a message to the user about what happened with the trade.⁴

⁴ This is not the legal confirm. The legal confirmation will be mailed as always.

2.4 Sample Page



□ Figure 2 -Sample Page

This page shows a typical page of the EDGE trading section, in this case, the Trading Home page. The user will be required to scroll larger pages when using a small monitor.⁵ This first figure shows the Trading area of the Edge within the Edge framed environment. All further figures will show only the trading frame.

2.4.1 Page Elements

Tabs. To make a Stock Trade, the user simply clicks on the Stock Trading "tab" to bring it forward (as shown on page Error! Bookmark not defined.).

Disclaimer copy. At the bottom of the page is a brief copyright notice and link to Help via email.

Drop-down lists are shown like the one below; they provide the user choices.

Select Account: ZK 34313 ▼

Radio buttons are used to show either/or choices, with the default shown blacked out.⁶

⁵ Vertical scrolling will be minimized as much and possible and horizontal scrolling will not be required ever.

⁶ The defaults shown in this document are not final.

Transaction: ☒ Buy ☐ Sell

Entry fields are of varying widths. Text entry into such a field can scroll to the right so the user can enter in more text than can appear at once.

Shares:

Buttons will appear using the standard button appearance for Windows as shown below.⁷

2.4.2

Art Direction Issues

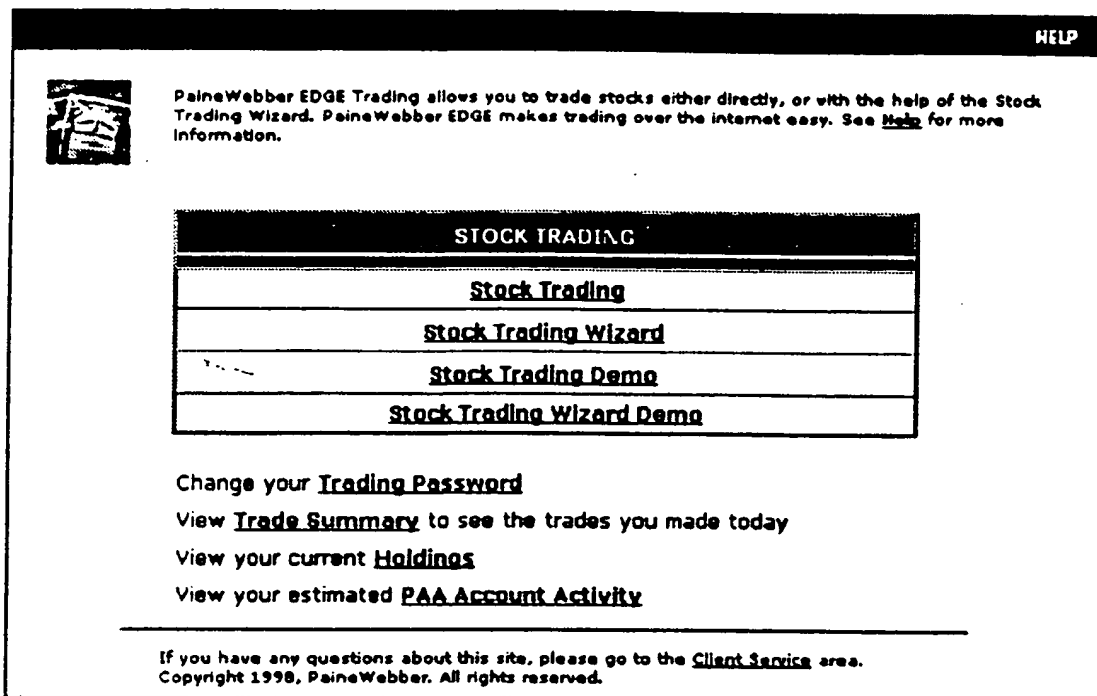
EDGE Trading has been designed to follow the graphic conventions and text standards set for the other parts of the EDGE 2.0 site.

⁷ Or Unix or the Mac, that is, it depends on the platform.

3 Trading Home Page

The Trading Home Page is the page that appears when the user clicks the EDGE Trading link on the navigation bar. The purpose of the page is to provide a table of contents to the trading features and to let the user navigate to those features.⁸

3.1 Trading Home Page Design



□ Figure 3 – Trading Home Page

3.2 Trading Home Page Functionality

The user receives a brief instructional message and a link to help. This help link is identical to the link that appears in the header

Links to separate areas of Trading are presented in two tables, Stock Trading and Mutual Fund Trading.

The Stock Trading table will contain the following links

1. [Stock Trading](#) - Opens the Stock Trading entry page (section 4).
2. [Stock Trading Wizard](#) - Opens the Stock Trading Wizard (section).
3. [Stock Trading Demo](#) - Opens the Stock Trading Demo (section 8).
1. [Stock Wizard Demo](#). Opens the Stock Wizard Demo (section 8).

Additional Links are provided on the page as follows:

1. **Trade Summary Link.** Opens the Trade Summary (section 7).
2. **Holdings Link.** Opens the Holding page. This page is already a part of the Edge. This link is included as a convenience.
3. **PAA Account Activity.** If the user has a PAA account, this line will appear. It links to a page which estimates the number of trades they have available (section 3.4.4).
4. At the bottom of the page will be the standard Edge Trading footer with a link to the Client Service section, and the standard copyright information.

3.3 Trading Notes

3.3.1 Eligible Clients

Trading will only be open to clients with PaineWebber clients with PAA accounts. Each PAA client receives a number of trades based on their asset level. These trades can be performed online.

3.3.2 Commissions

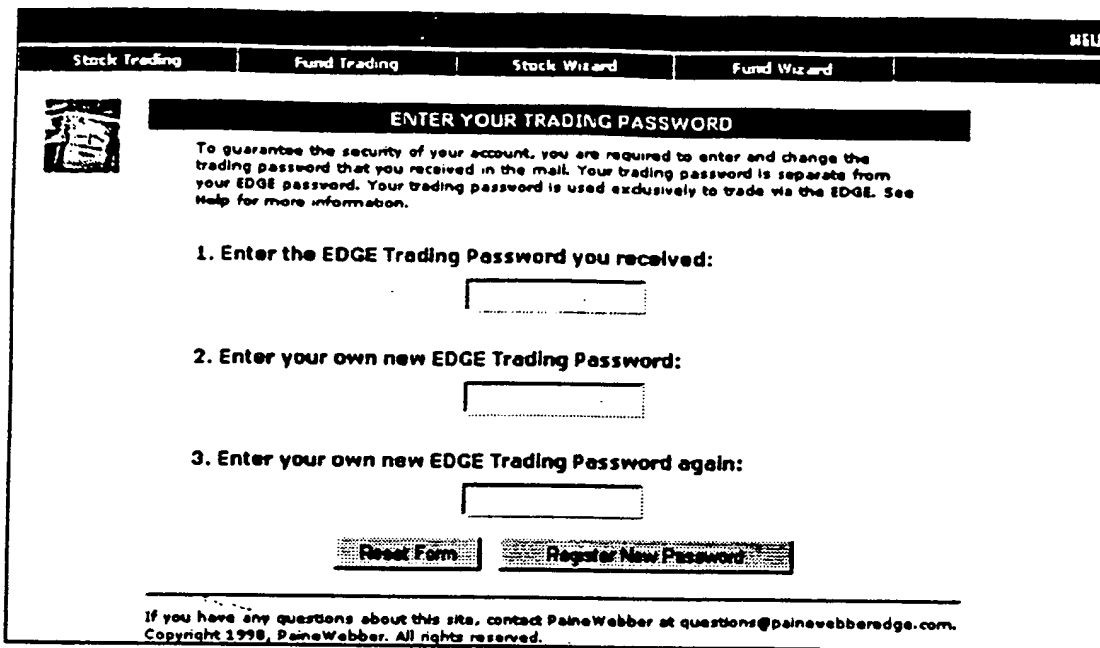
Clients will be able to trade even once their free trades are used up. The commission charged for online trades will be 25% less than the regular commission.⁹ The charge will not be reflected on the trade confirm page because of the way PAA accounting is handled by PaineWebber's accounting systems.¹⁰

3.4 Trading Passwords

⁹ Or at some other rate determined and controlled by PaineWebber.

¹⁰ For instance, the client's numbers of trades can change when they increase assets, yet this is only reflected quarterly.

3.4.1 Change Initial Password Page



ENTER YOUR TRADING PASSWORD

To guarantee the security of your account, you are required to enter and change the trading password that you received in the mail. Your trading password is separate from your EDGE password. Your trading password is used exclusively to trade via the EDGE. See Help for more information.

1. Enter the EDGE Trading Password you received:
2. Enter your own new EDGE Trading Password:
3. Enter your own new EDGE Trading Password again:

If you have any questions about this site, contact PaineWebber at questions@painewebberedge.com. Copyright 1998, PaineWebber. All rights reserved.

□ **Figure 4—Change Initial Password Page**

PaineWebber will assign the user an initial trading password. The first time the user enters EDGE trading they will be required to enter this password and change it to a new one as seen in Figure 4. This is a security measure to protect user account. Thereafter the user will be required to enter their trading password to execute a trade which they will be able to change using the Change Password link on the trading home page (see Figure 3 – Trading Home Page).

The user receives a brief instructional message and a link to help. This help link is identical to the link that appears in the header. Other elements are as follows:

1. **Enter the Edge Trading password you received:** - This is a text field. The user is required to enter the password they had received from PaineWebber. This is an alphanumeric text field with a maximum of 15 characters. The only allowable characters are letters, numbers, and the underscore character.
2. **Enter your own new Edge Trading Password:** - This is a text field. The user is required to enter a new password of their choice. This is an alphanumeric text field with a maximum of 15 characters. The only allowable characters are letters, numbers, and the underscore character.
3. **Enter your own new Edge Trading Password again:** - This is a text field. The user must reenter the password they had entered into the previous field to verify the entry made. This is an alphanumeric text field with a maximum of 15 characters. The only allowable characters are letters, numbers, and the underscore character.
4. **Reset Form** – This button will clear all entries that the user has made on the page.
5. **Change Password Button** - Pressing this button will register the new password. The data entered will then be validated. If the user has been successful, they will be taken to the trading home page. If not, then they will be taken back to the Change Password page. A message will appear at the top of this page to inform them that the change was unsuccessful, and to retry. If the user attempts to change the assigned password and fails three attempts in a row, then that password will be locked and the user will not be able to submit a trade. An error message will appear informing the user to call PaineWebber to place the order or call the Service Center to have their password either "unlocked", reset, or have a new password assigned.

3.4.2 Change Trading Password Page

CHANGE YOUR TRADING PASSWORD

To change your trading password, follow the steps below. See [Help](#) for more information.

1. Enter your current EDGE Trading Password:
2. Enter your new EDGE Trading Password:
3. Enter your new EDGE Trading Password again:

If you have any questions about this site, contact PaineWebber at questions@painewebberedge.com.
Copyright 1998, PaineWebber. All rights reserved.

□ Figure 5 – Change Trading Password Page

This page allows the user to change their existing Edge Trading Password.


3.4.3 Change Trading Password Page Functionality

A user may voluntarily change their own Trading Password. In some instances the password change request will be initiated by PaineWebber. On entering Trading, if PaineWebber has initiated the Password change the user will receive this page. The user receives a brief instructional message and a link to help. This help link is identical to the link that appears in the header. Other elements are as follows:

1. **Enter your current Edge Trading password:** - This is a text field. The user is required to enter their current password. This is an alphanumeric text field with a maximum of 15 characters. The only allowable characters are letters, numbers, and the underscore character.
2. **Enter your new Edge Trading Password:** - This is a text field. The user is required to enter a new password of their choice. This is an alphanumeric text field with a maximum of 15 characters. The only allowable characters are letters, numbers, and the underscore character.
3. **Enter your own new Edge Trading Password again:** - This is a text field. The user must reenter the password they had entered into the previous field to verify the entry made. This is an alphanumeric text field with a maximum of 15 characters. The only allowable characters are letters, numbers, and the underscore character.
4. **Cancel Button** - The user may cancel entry on this page at any time by pressing the cancel button. The user will be returned to the Trading Home Page.

5. **Change Password Button** - Pressing this button will register the new password. The data entered will then be validated. If the user has been successful, they will be taken to the trading home page. If not, then they will be taken back to the Change Password page. The message "Change Password attempt was unsuccessful" will appear at the top of the page. If the user attempts to change a password and fails three attempts in a row, then that password will be locked and the user will not be able to submit a trade. An error message will appear informing the user to call PaineWebber to place the order or call the Service Center to have their password either "unlocked", reset, or have a new password assigned.
6. At the bottom of the page will be the standard Edge footer with a link to the Client Service section, and the standard copyright information.

3.4.4 PAA Account Activity Page

Stock Trading	Stock Wizard	HELP
<div style="display: flex; align-items: flex-start;">  <div> <p>EDGE Trading provides PAA account holders, such as yourself, the ability to execute trades online. As a PAA account holder, you receive a number of free trades each year. You may use these to trade online. Once they're expended, you may continue to trade at reduced commissions. For more information about your PAA, call your Investment Executive, or see Help.</p> </div> </div>		
<div style="display: flex; justify-content: space-between; align-items: center;"> Select Account: <div style="border: 1px solid black; padding: 2px;">CG 12345 (PAA)</div> <div style="border: 1px solid black; padding: 2px 10px;">View This Account</div> </div>		
Annual Start Date: <code>annualStartDate</code> Renewal Date: <code>renewalDate</code>		
PAA ESTIMATED TRADING ACTIVITY		
Eligible Trades		
<div style="display: flex; justify-content: space-between;"> <div> <p>Your PAA Account Number: <code>cg 12345</code></p> <p>Your Investment Executive's Number: <code>ieNumber</code></p> </div> </div>		
<hr/> Maximum Trades: <code>maximumTrades</code> Trades Made: <code>tradesMade</code> Trades Over: <code>tradesOver</code> <hr/>		
Supplemental Fee: <code>supplementalFee</code> Commissions Waived: <code>commissionsWaived</code>		
Ineligible Trades		
Trades Made: <code>ineligibleTradesMade</code> Commission Billed: <code>commissionBilled</code>		
<div style="background-color: #f0f0f0; padding: 5px;"> <p>The values above are estimates only. Your contributions and withdrawals from your PAA account affect the number of trades, as noted in your PAA agreement. Trades are assessed on a quarterly basis, thus at the end of the quarter you may have results different from the estimate shown here. Should you have any questions, please call your Investment Executive.</p> </div>		
<p>If you have any questions about this site, please go to the Client Service area. Copyright 1998, PaineWebber. All rights reserved.</p>		

□ Figure 6 – PAA Account Activity Page

This page displays current PAA Account Activity for the user's selected PAA Account.

3.4.5 PAA Account Activity Page Functionality –section to be updated by PaineWebber

The data on this page is presented as static text. During the introductory paragraph the user is presented with a link to Help. This link is identical to the Help link in the header. The user is given an Account Selection drop down box from which they may choose the account they wish to view. The page will the redraw with the appropriate information.

The following data fields are displayed:

Eligible Trades:

1. Annual Start Date.
2. Annual Renewal Date
3. The PAA account number being shown.
4. The user's Investment Executive Number
5. Maximum Trades
6. Trades Made
7. Trades Over
8. Trades Completed
9. Supplemental Fee
10. Commissions waved

Ineligible Trades:

1. Trades Made
2. Commissions Billed

Also shown will be a disclaimer regarding the displayed account information.¹¹ At the bottom of the page will be the standard Edge footer with a link to the Client Service section, and the standard copyright information.

¹¹ Actual text to be decided by PaineWebber.

3.4.6 Delayed Quote Page

PaineWebber EDGE*

REUTERS GROUP			
All quotes are delayed at least 20 minutes.			
Symbol	RTRSY	Volume	211500
Price	53 1/4	Open	55
Day's High	55	Day's Low	53 3/16
Change	-1 7/8	% Change	-3.40
As of:	12/10/98 16:01		
Type	Stock:	Prev. Close	55 1/8
52 Wk High	74 3/4	P/E Ratio	17.81
52 Wk Low	42 1/8	EPS	2.99
Exchange	NASDAQ		

To retrieve a delayed quote, please enter the symbol below:

□ Figure 7 - Delayed Quote Page

The delayed quote information shows the standard 20 Minute delayed quote information from Reuters. Most users will see this information within a pop-up window. AOL users will receive it within the Edge frame.


4 Stock Trading Page

4.1 Stock Trading Entry Page

HELP

Stock Trading

Stock Wizard



This page allows you to enter a Stock Trade. See [Help](#) for more information.

STOCK TRADE ORDER ENTRY			
Select Account:	CG 12345 (PAA)	Transaction: <input checked="" type="radio"/> Buy <input type="radio"/> Sell	
Symbol:		Get Quote	Lookup Symbol
Duration:	Day	Shares:	
OrderType	StopPrice	LimitPrice	Qualifier
<input checked="" type="radio"/> Market			<input type="text" value="None"/>
<input type="radio"/> Limit			<input type="text" value="None"/>
<input type="radio"/> Stop			<input type="text" value="None"/>
<input type="radio"/> Stop/Limit			<input type="text" value="None"/>

Is this transaction a result of a recommendation by your Investment Executive or based upon information supplied by PaineWebber or its employees?
☐ Yes ☐ No

[Return to Trading Home](#) [Next Step >>](#)

If you have any questions about this site, please go to the [Client Service](#) area.
 Copyright 1998, PaineWebber. All rights reserved.

□ Figure 8 – Stock Trading Page 1

4.2 Stock Trading Functionality

1. An introductory paragraph includes a link to the appropriate help file for this page. This link is identical to the link presented with the page header.
2. **Select Account:** - Drop Down list box. This will be populated with the user's account number(s), from which they make a selection (Note - only accounts enabled for Trading will be shown.) If they only have one account this will be the only one shown. Account numbers will be listed in alphanumeric order. The default account number to be shown will be the first that appears in the list alphabetically.
3. **Transaction:** - User is presented with two radio buttons from which they must choose, Buy or Sell. There will be no default.

4. **Duration:** - This is a drop-down list box, which presents the user with additional order qualifiers that they may choose. There is no default for this list box.
5. **Symbol:** - This is an alphanumeric text entry field, which allows the user to enter the desired stock symbol. Maximum length of this field will be 12 characters.
6. **Lookup Symbol** - This is a button that will open a pop-up window (or link to a separate page dependant on the user's browser capability). The resultant page will present the user with a list of symbols (presented as links) which corresponds to the data entered in the Enter Company Name field. Once the user selects a symbol, they will be returned to the original page, with the chosen symbol now populated within the Enter Stock Symbol field.
7. **Get Quote** - This is a button, which will open a pop-up window (or link to a separate page dependent on user's browser capability). The resultant page will provide the user with 20 min. delayed Moneynet quote information. [Due to language constraints, the user must enter the symbol on the get quote page.]
8. **Shares:** - This is a numeric text entry field, which will allow the user to enter the number of shares to be bought or sold. The maximum length of this field will be 10 characters.
9. **Order:** - This section of the page provides the user with the ability to enter/choose specific details about their order.
 - **Order type** - The user is presented with four radio buttons from which they must make a choice of Market, Limit, Stop, or Stop Limit order types.
 - **Price fields** - The price fields are alphanumeric text fields that appear next to the corresponding order type button. The user may enter a Limit, Stop, or Stop Limit price within the appropriate text field. The maximum length of this field will be 12 characters and may include a fraction (e.g. 110 1/8). This will be a mandatory field - a price must be entered for these order types.
 - **Qualifiers** - These are drop-down list boxes that will appear within the same line as each of the Order Types. The appropriate qualifiers that will populate each list are dependent on the associated order type.
10. **Solicited/Unsolicited trades.** - This is a choice of two radio buttons. They have no default. The user is required to indicate whether the trade has been solicited by a PaineWebber IE or by materials or input provided by PaineWebber.
11. **Cancel Order:** - This is a button that returns the user to the Trading Home page. Any entries that were made on this page are not stored.
12. **Next Step:** - This is a button, which sends the user to the next appropriate page. The data entries made by the user will be checked for completeness of all required fields, and the proper choice of qualifiers and duration as defined within the Valid Trade tables (Figure 10 - Listed Equity Valid Trade or Figure 11 - OTC Valid Trade). If the data meets the qualifications, the user entered trade data is sent to PaineWebber for a second accuracy check. If it passes, the user is taken to the second page in Stock Trading, the Recap page (section 4.6). If the trade fails, either at PaineWebber or within the browser, the user will receive an appropriate error message (section 10).
13. At the bottom of the page will be the standard Edge footer with a link to the Client Service section, and the standard copyright information.

4.3 Stock Trading Qualifiers and Trade Types

This section shows the variables for stock buys and sells.¹² These have been provided by PaineWebber.

Abbreviation	Type	Definition
DAY	Duration	Day
GTC	Duration	Good Till Cancelled
FOK	Duration	Fill Or Kill
IOC	Duration	Immediate Or Cancel
DNR	Execution	Do Not Reduce
DNI	Execution	Do Not Increase
AON	Execution	All Or None
MKT	Price	Market Order
LMT	Price	Limit Order
STP	Price	Stop Order
ST/LM	Price	Stop/Limit Order

□ Figure 9 - Stock Buy/Sell Trade Abbreviation Definitions

Note:

- DAY, GTC, FOK and IOC are mutually exclusive states.

4.4 Listed Equity Valid Trade Table

Duration	Execution	Price	Buy	Sell
DAY		MKT	X	X
DAY		LMT	X	X
DAY		STP	X	X
DAY		STP/LMT	X	X
DAY	AON	LMT	X	X
GTC		LMT	X	X
GTC		STP	X	X
GTC		STP/LMT	X	X
GTC	DNR	LMT	X	X
GTC	DNR	STP	X	X
GTC	DNR	STP/LMT	X	X
GTC	DNI	MKT	X	X
GTC	DNI	LMT	X	X
GTC	DNI	STP	X	X
GTC	DNI	STP/LMT	X	X
GTC	AON	LMT	X	X
GTC	AON/DNR	LMT	X	X
GTC	AON/DNI	LMT	X	X

¹² Additional qualifiers are needed to support short selling, which we are not doing in this release.

FOK		LMT	X	X
IOC		MKT	X	X
IOC		LMT	X	X

□ Figure 10 - Listed Equity Valid Trade Table

4.5 OTC Valid Trade Table


Duration	Execution	Price	Buy	Sell
DAY		MKT	X	X
DAY		LMT	X	X
DAY		STP	X	X
DAY	AON	LMT	X	X
GTC		LMT	X	X
GTC		STP	X	X
GTC		STP/LMT	X	X
GTC	DNR	LMT	X	X
GTC	DNR	STP		X
GTC	DNR	STP/LMT		X
GTC	DNI	LMT	X	X
GTC	DNI	STP	X	X
GTC	DNI	STP/LMT	X	X
GTC	AON	LMT	X	X
GTC	AON/DNR	LMT	X	X
GTC	AON/DNI	LMT	X	X
FOK		LMT	X	X
IOC		MKT	X	X
IOC		LMT	X	X

□ Figure 11 - OTC Valid Trade Table

4.6 Stock Trading Recap Page

Stock Trading

Stock Wizard



Once you are sure the order is correct, enter your Trading Password and click Send Trade. See [Help](#) for more information.

Trade Recap	
Account:	CG 12345
Transaction:	SELL
Security:	RTRSY
Shares:	250
Duration:	GTC
Order Type:	Stop/Limit
Stop Price:	65
Limit Price:	60
Qualifiers:	DNI

DaveT's Canned Data Corp.			
Symbol	RTRSY	Volume	123456789
Price	9 255/256	Open	12 1/2
Bid Price	9 1/8	Bid Size	5
Ask Price	11 7/8	Ask Size	12
Day's High	15 3/4	Day's Low	6 3/4
Change	-1 1/256	% Change	10.04
Tick	↑	Currency	USD
As of	11/24/1998 11:43		
Type		Prev. Close	11
52 Wk High	20 1/2	P/E Ratio	27.4
52 Wk Low	6 1/2	EPS	1.23
Exchange	NYSE	Yield	1.22

Enter your Trading Password:

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□ Figure 12 - Stock Trading Recap Page

4.7 Stock Trading Recap Functionality

This is the second page the user sees during trade execution. If the user-entered data from the first page has been verified successful, then they are brought to this page.

An introductory paragraph includes a link to the appropriate help file for this page. This link is identical to the link presented with the page header.

The page will primarily consist of two visual static text tables that appear side by side.

1. **Trade Recap:** - This table will reiterate the user-entered trade data. The fields to be included are Account #, Transaction, Symbol, Shares, Duration, Order Type, Stop Price, Limit Price, and Qualifiers.
2. **Real-Time Quote table:** - The user will be given a real-time quote for the trade symbol they had previously entered. The title field within the box will be the Symbol Description. Additional fields shown will be Symbol,

Volume, Price, Open, Bid Price, Ask Price, Bid Size, Ask Size, Day's High, Day's Low, Change, Percent Change, Tick, Currency, and As of. As of will show the date and time of the quote (Y2k compliant date). Shown in a different section of this table will be Type, Prev. Close, 52 Week High, 52 Week Low, P/E Ratio, EPS, Exchange, and Yield.

Additional elements found on this page are:

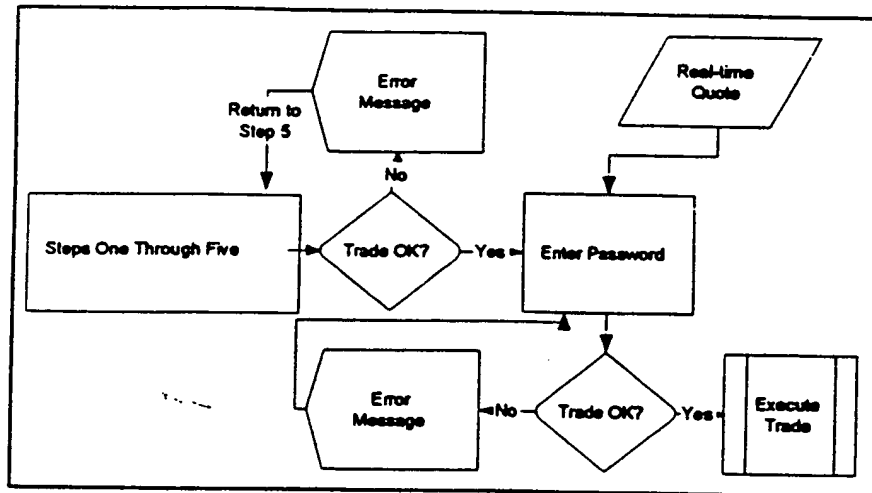
1. **Enter your Trading Password:** - This is an alphanumeric text entry field that will allow the user to enter their PaineWebber assigned trading password. This field will have a maximum of 15 characters.
2. **Previous Step:** - This is a button. This allows the user to return to the first page of Stock Trading. All data that had been previously entered into that page will appear in their appropriate fields. The user may then edit and/or resubmit, or cancel at this point.
3. **Cancel Order:** - This is a button. This gives the user the option to cancel the trade request at this point. The user is then returned to the Trading Home page.
4. **Send Trade** - This is a button. When pressed, the trade data is sent to PaineWebber for verification and execution. If it fails, the user will receive a message to that effect, if it succeeds, then the trade is executed. Once submitted, it will be posted to the user's Trade Summary page so that it can be seen

The page will also include the standard Edge footer with the email address for user questions, and the standard Copyright information.

5 Stock Trade Wizard

The purpose of the Stock Trade Wizard is to step the user through the process of online trading one step at a time so they can get comfortable with the process.¹³

5.1 Stock Trading Wizard Flow Diagram



□ Figure 13 – Stock Trading Wizard Flow Diagram

¹³ Fear of making a "mistake" is a key reason people are hesitant to trade online.

5.2 Stock Trading Wizard Page One - Buy/Sell

Stock Trading **Stock Wizard** **HELP**

Stock Trading Wizard 1 Buy/Sell 2 Symbol 3 Shares 4 Type 5 Qualifiers 6 Password

Choose the account from which you would like to trade, then pick the type of trade you want to perform. See [Help](#) for more information.

Select Account:

Transaction: ☒ Buy
Buy the stock of your choice.

☐ Sell
Sell a stock of your choice from your holdings.

To sell short, or make another type of transaction, contact your Investment Executive.

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□ Figure 14 –Stock Trading Wizard Page 1

5.3 Stock Trading Wizard Page 1 Functionality

1. An introductory paragraph includes a link to the appropriate help file for this page. This link is identical to the link presented with the page header.
2. Account: - Drop Down list box. This will be populated with the user's account number(s), from which they make a selection (Note - only accounts enabled for Trading will be shown). If they only have one account this will be the only one shown. Account numbers will be listed in alphanumeric order. The default account number to be shown will be the first that appears in the list alphabetically.
3. Transaction: - User is presented with two radio buttons from which they must choose, Buy or Sell. There will be no default.
4. Cancel Order: - This is a button that returns the user to the Trading Home page. Any entries that were made on this page are not stored.
5. Next Step: - This is a button, which sends the user to the next appropriate page
6. At the bottom of the page will be the standard Edge footer with a link to the Client Service section, and the standard copyright information.

5.4 Stock Trading Wizard Page Two - Symbol

Stock Trading Wizard **1 Buy/Sell** **2 Symbol** **3 Shares** **4 Type** **5 Qualifiers** **6 Password** **HELP**

Pick the stock you would like to trade by entering its symbol. See [Help](#) for more information.

Enter Stock Symbol: **Get Quote**

You can get a delayed quote by clicking the Get Quote button.

If you don't know the symbol, you can look it up by entering the company name, or part of its name below and clicking the Lookup Symbol button.

Enter Company Name: **Lookup Symbol**

Trade Recap	
Account:	CG 45678
Transaction:	SELL
Security:	
Shares:	
Duration:	
Order Type:	
Stop Price:	
Limit Price:	
Qualifiers:	

Is this transaction a result of a recommendation by your Investment Executive or based upon information supplied by PaineWebber or its employees?
☐ Yes ☐ No

<< Previous **Cancel Order** **Next Step >>**

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□ Figure 15 –Stock Trading Wizard Page 2

5.5 Stock Trading Wizard Page 2 Functionality

1. An introductory paragraph includes a link to the appropriate help file for this page. This link is identical to the link presented with the page header.
2. **Enter Stock Symbol:** - This is an alphanumeric text entry field, which allows the user to enter the desired stock symbol. Maximum length of this field will be 12 characters.
3. **Get Quote** - This is a button that will open a pop-up window (or link to a separate page dependant on the user's browser capability). The resultant page will provide the user with 20 min. delayed quote information.
4. **Enter Company Name:** - This is an alphanumeric text entry field, which allows the user to enter the name of the desired stock for purposes of retrieving the correct symbol. User must use the Lookup Symbol button to retrieve the symbol. Maximum length of this field is 32 characters.
5. **Lookup Symbol** - This is a button that will open a pop-up window (or link to a separate page dependant on the user's browser capability). The resultant page will present the user with a list of symbols (presented as links) which corresponds to the data entered in the Enter Company Name field. Once the user selects a

symbol, they will be returned to the original page, with the chosen symbol now populated within the Enter Stock Symbol field.

6. **Solicited/Unsolicited trades.** - This is a choice of two radio buttons. They have no default. The user is required to indicate whether the trade has been solicited by a PaineWebber IE or by materials or input provided by PaineWebber.
7. **Previous** - This is a button, which sends the user to the previous page.
8. **Cancel Order:** - This is a button that returns the user to the Trading Home page. Any entries that were made on this page are not stored.
9. **Next Step:** - This is a button, which sends the user to the next appropriate page
10. **Trade Recap** - This table will reiterate the user-entered trade data to this point. The fields to be included are Account #, Transaction, Symbol, Shares, Duration, Order type, Limit Price, Stop Price, and Qualifiers.
11. At the bottom of the page will be the standard Edge footer with a link to the Client Service section, and the standard copyright information.

5.6 Stock Trading Wizard Page Three - Qualifiers

HELP

Stock Trading
Stock Wizard

Stock Trading Wizard
1 Buy/Sell
2 Symbol
3 Shares
4 Type
5 Qualifiers
6 Password

Enter the number of shares to buy or sell and the duration of the order. See [Help](#) for more information.

Enter Shares:

Duration:

☒ **Day**
Order to be executed the day it is placed or it will expire.

☐ **Good Till Cancelled (GTC)**
GTC order remains in effect until either executed or cancelled.

☐ **Fill or Kill (FOK)**
FOK requires that your entire order be filled immediately, though not necessarily at one price. If all shares are not purchased immediately, then the entire order is cancelled.

☐ **Immediate or Cancel (IOC)**
IOC requires the immediate execution of your order, all or in part. If all shares are not purchased immediately, the remaining portion of the order is cancelled.

Trade Recap

Account:	CG 45678
Transaction:	SELL
Security:	RTRSY
Shares:	
Duration:	
Order Type:	
Stop Price:	
Limit Price:	
Qualifiers:	

<< Previous
Cancel Order
Next Step >>

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□ Figure 16 -Stock Trading Wizard Page 3

5.7 Stock Trading Wizard Page 3 Functionality


1. An introductory paragraph includes a link to the appropriate help file for this page. This link is identical to the link presented with the page header.
2. **Previous** - This is a button, which sends the user to the previous page.
3. **Cancel Order:** - This is a button that returns the user to the Trading Home page. Any entries that were made on this page are not stored.
4. **Next Step:** - This is a button, which sends the user to the next appropriate page.
5. **Trade Recap** - This table will reiterate the user-entered trade data to this point. The fields to be included are Account #, Transaction, Symbol, Shares, Duration, Order type, Limit Price, Stop Price, and Qualifiers.
6. At the bottom of the page will be the standard Edge footer with a link to the Client Service section, and the standard copyright information.

5.8 Stock Trading Wizard Page Four - Trade Type

HELP

Stock Trading
Stock Wizard

Stock Trading Wizard
1 Buy/Sell
2 Symbol
3 Shares
4 Type
5 Qualifiers
6 Password



Enter the order type and any restrictions needed. See [Help](#) for more information.

☒ **Market Order**
Buy at the best price available at the time the order is made.

☐ **Limit Order**
Buy when the stock price is at or below the price to the right.

☐ **Stop Order**
Becomes a market order once the stock trades at or below the stop price to the right. Once activated, execution is guaranteed but not the execution price.

☐ **Stop/Limit Order**
Becomes a limit order when the price is at or below the Stop Price and can only be executed at the Limit Price or lower. See Help for more information.

Limit Price

Stop Price

Stop Price

Limit Price

Trade Recap

Account:	CG 45678
Transaction:	SELL
Security:	RTRSY
Shares:	850
Duration:	GTC
Order Type:	
Stop Price:	
Limit Price:	
Qualifiers:	

<< Previous
Cancel Order
Next Step >>

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□ Figure 17 -Stock Trading Wizard Page 4

5.9 Stock Trading Wizard Page 4 Functionality

1. An introductory paragraph includes a link to the appropriate help file for this page. This link is identical to the link presented with the page header.
2. **Order Type** – The user is presented with four radio buttons from which they must choose or accept the default. The four types are Market, Limit, Stop, and Stop Limit. The default is Market.
3. **Limit Price, Stop Price, Stop Price and Limit Price** – These price fields are alphanumeric test fields that appear next to the corresponding order type radio button. The user may enter a price in the appropriate text field. The maximum length of this field will be 12 characters and may include a fraction (e.g. 110 1/8). This will be a mandatory field if the corresponding radio button has been checked – a price must be entered for these order types.
4. **Trade Recap** – This table will reiterate the user-entered trade data to this point. The fields to be included are Account #, Transaction, Symbol, Shares, Duration, Order type, Stop Price, Limit Price, and Qualifiers.
5. **Previous** - This is a button, which sends the user to the previous page.
6. **Cancel Order:** - This is a button that returns the user to the Trading Home page. Any entries that were made on this page are not stored.


7. Next Step: - This is a button, which sends the user to the next appropriate page.
8. At the bottom of the page will be the standard Edge footer with a link to the Client Service section, and the standard copyright information.

5.10 Stock Trading Wizard Page Five – Qualifiers

HELP

Stock Trading
Stock Wizard

Stock Trading Wizard
1 Buy/Sell
2 Symbol
3 Shares
4 Type
5 Qualifiers
6 Password



Select an optional trade qualifier if you desire. See [Help](#) for more information.

☒ **None**
Select None if you do not want any further qualifier attached to your order.

☐ **All or None (AON)**
AON requires that no part of an order be executed unless all of it can be done at a specified price.

☐ **Do Not Reduce (DNR)**
DNR requires that an order NOT be reduced when a stock goes ex-dividend and its price is reduced by the amount of the dividend becomes a market order once the stock trades at or below the stop price to the right.

☐ **Do Not Increase (DNI)**
DNI prevents the quantity of the order from changing in the event of a stock split or dividend.

☐ **All or None/Do Not Reduce (AON/DNR)**
AON DNR signifies that no partial transaction is to be executed and it is not to be reduced. Specialists will otherwise automatically reduce all orders below the market by the amount of a cash dividend on the ex-dividend date.

☐ **All or None/Do Not Increase (AON/DNI)**
AON DNI signifies that no partial transaction is to be executed and it is not to be increased. Specialists will otherwise automatically increase all orders by the amount of a cash dividend or stock split price.

Trade Recap

Account:	CG 45678
Transaction:	SELL
Security:	RTRSY
Shares:	850
Duration:	GTC
Order Type:	Limit
Stop Price:	
Limit Price:	73
Qualifiers:	

<< Previous
Cancel Order
Next Step >>

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□ Figure 18 -Stock Trading Wizard Page 5

5.11 Stock Trading Wizard Page 5 Functionality

1. An introductory paragraph includes a link to the appropriate help file for this page. This link is identical to the link presented with the page header.
2. **Qualifiers** – This is a set of 6 radio buttons from which the user must choose, or accept the default. The options are None, All or None, Do Not Reduce, Do Not Increase, All or None/ Do Not Reduce, All or None/ Do Not Increase
3. **Previous** - This is a button, which sends the user to the previous page.


4. **Cancel Order:** - This is a button that returns the user to the Trading Home page. Any entries that were made on this page are not stored.
5. **Next Step:** - This is a button, which sends the user to the next appropriate page. The data entries made by the user will be checked for completeness of all required fields, and the proper choice of qualifiers and duration as defined within the Valid Trade Tables (see Figure 10 - Listed Equity Valid Trade, Figure 11 - OTC Valid Trade Table). If the data meets the qualifications, the user entered trade data is sent to PaineWebber for a second accuracy check. If it passes, the user is taken to the second page in the Trade Center, the Recap page (section 4.6). If the trade fails, either at PaineWebber or within the browser, the user will receive an appropriate error message (section 10).
6. **Trade Recap** - This table will reiterate the user-entered trade data to this point. The fields to be included are Account #, Transaction, Symbol, Shares, Duration, Order type, Limit Price, Stop Price, and Qualifiers.
7. At the bottom of the page will be the standard Edge footer with a link to the Client Service section, and the standard copyright information.

5.12 Stock Trading Wizard Page Six - Password

HELP

Stock Trading

Stock Wizard



Once you are sure the order is correct, enter your Trading Password and click Send Trade. See [Help](#) for more information.

Trade Recap	
Account:	CG 45678
Transaction:	SELL
Security:	RTRSY
Shares:	80000000
Duration:	GTC
Order Type:	Stop/Limit
Stop Price:	165
Limit Price:	154
Qualifiers:	DNR

DaveT's Canned Data Corp.			
Symbol:	RTRSY	Volume:	123456789
Price:	9 255/256	Open:	12 1/2
Bid Price:	9 1/8	Bid Size:	5
Ask Price:	11 7/8	Ask Size:	12
Day's High:	15 3/4	Day's Low:	6 3/4
Change:	-1 1/256	% Change:	10.04
Tick:	↑	Currency:	USD
As of:	11/24/1998 11:43		
Type:		Prev. Close:	11
52 Wk High:	20 1/2	P/E Ratio:	27.4
52 Wk Low:	6 1/2	EPS:	1.23
Exchange:	NYSE	Yield:	1.22

Enter your Trading Password:

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□ Figure 19 -Stock Trading Wizard Page 6

5.13 Stock Trading Wizard Page 6 Functionality

An introductory paragraph includes a link to the appropriate Help file for this page. This link is identical to the link presented within the page header.

The page will primarily consist of two visual static text boxes that appear side by side:

1. **Real-Time Quote table:** - The user will be given a real-time quote for the trade symbol they had previously entered. The title field within the box will be the Symbol Description. . Additional fields shown will be Symbol, Volume, Price, Open, Bid Price, Ask Price, Bid Size, Ask Size, Day's High, Day's Low, Change, Percent Change, Tick, Currency, and As of. As of will show the date and time of the quote (Y2k compliant date). Shown in a different section of this table will be Type, Prev. Close, 52 Week High, 52 Week Low, P/E Ratio, EPS, Exchange, and Yield.

2. **Trade Recap** – This table will reiterate the user-entered trade data to this point. The fields to be included are Account #, Transaction, Symbol, Shares, Duration, Order type, and Qualifiers.


Additional elements found on this page are:

3. **Enter your Trading Password:** - This is an alphanumeric text entry field that will allow the user to enter their PaineWebber assigned trading password. This field will have a maximum of 15 characters.
4. **Previous** - This is a button, which sends the user to the previous page.
5. **Cancel Order:** - This is a button that returns the user to the Trading Home page. Any entries that were made on this page are not stored.
6. **Send Trade:** - This is a button. When pressed, the trade data is sent to PaineWebber for verification and execution. If it fails, the user will receive a message to that effect. If it succeeds, then the trade is executed. Once the trade has been submitted it will be posted to the user's Trading Summary page so that it can be seen.
7. **Trade Recap** – This table will reiterate the user-entered trade data to this point. The fields to be included are Account #, Transaction, Symbol, Shares, Duration, Order type, and Qualifiers.
8. At the bottom of the page will be the standard Edge footer with a link to the Client Service section, and the standard copyright information.

6 Stock Order Confirmation Page

Once the user's order has been sent to PaineWebber and processed, they receive an online confirmation. This is *not* a real confirmation; instead it's an online version that simply acknowledges the order has been submitted.

HELP	
Stock Trading	Stock Wizard



Order Sent!

Thank you for placing your order over the PaineWebber EDGE.

This is not a legal confirmation of your trade. Instead it is a completed recap of your trade. Your actual trade confirmation will be mailed to you, or you can contact your Investment Executive for the information.

Use the Reference number below if you call PaineWebber about this trade. For more information about the data shown here, see [Help](#).

Trade Recap			
EDGE Trade Date/Time			
Reference #:	TMP_REF1234567890		
Account:	CG 45678	Duration:	GTC
Transaction:	SELL	Order Type:	Stop/Limit
Security:	RTRSY	Qualifiers:	DNR
Shares:	80000000	Limit Price:	154
		Stop Price:	165

Please go to the [Trade Summary](#) page to see the order status

[New Trade](#)
[Trade Summary](#)
[Trading Home](#)

If you have any questions about this site, please go to the [Client Service](#) area.
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□ Figure 20 -Stock Trading Wizard Order Confirm Page

6.1 Stock Order Confirmation Page Functionality

1. An introductory paragraph includes a link to the appropriate Help file for this page. This link is identical to the link presented within the page header.
2. **Trade Recap** – This table will reiterate the user-entered trade data to this point. The fields to be included are Order Reference #, Account #, Transaction, Security (Symbol), Shares, Duration, Order type, Qualifiers, Limit Price, and Stop Price.
3. **New Trade**. – A button that returns the user to the first page of the Trade Center or Stock Trading Wizard so a new trade can be executed.
4. **Trade Summary**. – A button that links to the Trade Summary page (section 7)
5. **Trade Home**. – A button that links to the EDGE Trading Home page (section 3.1).

6. At the bottom of the page will be the standard Edge footer with a link to the Client Service section, and the standard copyright information.

7 Trade Summary Page

The purpose of the Trade Summary is to show the trades that the user performed online today. This activity appears here because the other pages on the EDGE (Holdings, Activity, etc.) will not be updated until the evening after the trade is made. The Trade Summary simply shows those activities that are not yet posted.


In addition the Trade Summary lets the user alter trades that have been posted but are not yet executed, or have been partially executed, for instance a limit order. In this case the user will be able to cancel the order or perform a cancel replace.

7.1 Trade Summary Page Design

HELP

Stock Trading

Stock Wizard



This page shows your online activity for today. These transactions will be reflected in your Holdings, Securities Activity, Distributions and Cash Activity pages after market close and overnight posting. Click the symbol to view the trade details. See [Help](#) for more information. Click here to return to the [Trading Home](#) page.

Select Account: CG 45678 (PAA) View This Account

TRADE SUMMARY

SELL	100	DAVEI	DaveT's Canned Data Corp.	Executed
Client: Sold 100 at Market at 12:00 11/24/98				

Order Type : MARKET Ref Date: REFDATE-12/2/98 Order #: REFNUM-1234567890
Duration: DAY Limit: Stop:
Acct #: CG 12345

transaction	shares	symbol	securityName	orderStatus
orderEnteredBy lastEventMessage				

Order Type : orderType Ref Date: REFDATE-12/3/98 Order #: REFNUM-111234567890
Duration: duration Limit: limitPrice Stop: stopPrice
Acct #: CG 12345

Modify/Cancel Order

transaction	shares	fundName	orderStatus
orderEnteredBy			

Ref Date: REFDATE-12/3/98 Order #: REFNUM-111234567890
Instruction: Price: price Execution Amount: executionAmount

If you have any questions about this site, please go to the [Client Service](#) area.
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□ Figure 21 -Trade Summary Page

7.1.1 Trade Summary Functionality

The top of the page will include a brief disclaimer message regarding account information.¹ Within this wording will be a link to the Help file for this section (same as the link within the header) as well as a link back to the Trading Home page.

The Trading Summary content will be a series of tables. The total number of tables that will be seen is dependent on the number of orders placed for the current calendar date. The content will be primarily static text as outlined/defined in **Figure 22 –Trade Summary Data Content Definition Table –Stock Trade Detail**.

Both the Symbol and Description for the order's equity will be presented as links to the Trade Summary Detail Page (see page number 40). To view the details for a specific order, the user clicks on its symbol or name and is transferred to the appropriate page.

Modify/Cancel button appears on trades that are eligible for these actions. This button will take the user to the Modify Order Section. There the user may cancel an entire order, cancel a partial order, or cancel and replace an order. This button appears when indicated by PaineWebber.

Trading Home Link. Clicking the Trading Home link returns the user to the Trading Home page (section 3).

Trades can be generated by the client or by the Client's Investment Executive. Each trade is labeled as client entered or IE entered. Also, only trades entered by the client will be editable and cancelable; those entered by the IE will not be (these are for display only). The data that appears on IE entered trades will be identical to the Holdings data, plus a status field. The reason we will use this format, at least initially, is that there are other trade-types that appear on Holdings but as of yet will not be available for trading over the EDGE (such as bonds, options, etc.).

Field	Notes and Data
Account	Account number
Account Classification	PAA, etc
Symbol	
Description	
Original Order Entry Date	From the EDGE
Order Entry	Client Entered or IE Entered
Order Status	Status details are on the Detail page
Order Type	LMT, STP, STPLMT, MKT
Order Duration	Day, GTC, FOK, IOC (also called the Order Time in Force)
Order Instruction	Buy, Sell
Order Reference #	7 digits
Limit Price	
Stop Price	
Last Execution Date/Time	Appears if needed
Quantity	
Execution Price	
Modify/Cancel Button	Button linking to the Modify/Cancel section.

□ **Figure 22 –Trade Summary Data Content Definition Table –Stock Trade Detail**

7.1.2 Trade Summary: Fund Data Fields

Field	Notes and Data
Account	Account number
Account Classification	PAA, etc
Fund Name	Fund bought, sold or exchanged from
Exchange To Name	Appears only on exchange transactions
Original Order Entry Date	From the EDGE
Order Entry	Client Entered or IE Entered
Order Status	Status details are on the Detail page
Order Instruction	Buy, Sell, Sell All, Exchange, Exchange All
Order Reference #	7 digits
Execution Date/Time	Appears if needed
Price	Only appears on executed orders
Quantity	Amount in shares
Execution Amount	Amount in dollars

□ **Figure 23 -Trade Summary Content Definition Table - Fund Trade Detail**

7.2 Trade Detail Page

The user gets to the Trade Detail page by clicking on the link to a trade listed on the Trade Summary. The link will be the security symbol and description.*

7.2.1 Trade Detail Page Design

TRADING DETAIL

transaction	shares	symbol	securityName	orderStatus
originalOrderEntryDate				

Order Type: orderType Duration: duration Limit: limitPrice Stop: stopPrice
 Order #: REFNUM-1234567890 Account: CG 12345 User ID: userID

QUANTITY	PRICE	EXECUTION
Open: 500	Last Price: lastPrice	Net Money: netMoney
Executed: 0		Avg. avgExecutedDailyPrice
Canceled: 0		Executed Price:
Cancel Pend: 0	lastPriceDateTime	Order entry exchangeOrderEntryDate Settlement on settlementDate

EVENT LIST

Type	Action	Symbol	Quantity	Price	Exchange	Date/Time
eventType1	eventAction1	eventSymbol1	eventShares1	eventPrice1	executionExchange1	eventDateTime1
eventType2	eventAction2	eventSymbol2	eventShares2	eventPrice2	executionExchange2	eventDateTime2

[View Original Order](#) [View Replacement Order](#)

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□ Figure 24 -Trade Detail Page

7.3 Trade Detail Functionality

1. An introductory paragraph includes a link to the appropriate help file for this page. This link is identical to the link presented with the page header.
2. **Trading Home Link** - Clicking the Trading Home link returns the user to the Trading Home page (section 3).
3. **Trade Summary Link** - Clicking this link returns the user to the Trade Summary page (section 7.1)
4. **View Original Order and View Replacement Order** - These are buttons that appear on orders that require these links. For instance, an edited order will have a link to the original.
5. At the bottom of the page will be the standard Edge footer with a link to the Client Service section, and the standard copyright information.

7.3.1 Trade Detail Content

Field	Notes and Data
Trading Detail Section:	
Order Instruction	Buy, Sell
Quantity	The order quantity
Symbol	The symbol for the equity
Description	The description of the equity
Original Order Entry Date	From the EDGE
Order Entry	Client Entered or IE Entered
Order Status	Open, Executed, Cancelled
Order Type	Market, Limit, Stop, Stop/Limit
Duration	Day, GTC, FOK, IOC
Limit Price	The price entered during the order entry phase
Stop Price	The price entered during the order entry phase
Order #	7 digit order Reference number
Account	Account number
Account Classification	PAA, etc
User ID	User's EDGE User ID
Quantity Section:	
Open Quantity	Share quantity left open
Executed Quantity	Share quantity executed
Canceled Quantity	Share quantity canceled
Cancel Pend	Share quantity pending cancellation
Price Section:	
Last Price	Last Price per quote
Last Price Date/Time	Date/time of quote
Execution:	
Net Money	Principal amount (quantity x price)
Average Executed Price	Average Executed Daily Price
Exchange Order Entry Date	Date/Time the order was logged at the exchange
Event List:	
Event Type	Execution, Admin, Reject, Bust, Drop, Cancel, GTC Adjustments, etc.
Event Action	Sold, Bought, UR Out, NC, TLTC, cancel, partial/multiple executions
Event Symbol	Symbol for the event equity
Event Quantity	Quantity for the event equity
Event Price	Price for the event
Event Exchange	Exchange of the event equity
Event Date/Time	Date/time for the event
View Original Order Button	For cancelled orders, links back to the original order. Only appears on the page if needed.


View Replacement Orders	For replacement orders for cancel operation, links to the replacement order. Only appears on the page if needed.
-------------------------	--

□ Figure 25 -Trade Detail Page Content Definition Table

8 Modify/Cancel Order from Trade Summary

8.1 Cancel/Partial Cancel Page

Stock Trading		Stock Wizard		HELP	
Modify Order		Cancel/Partial Cancel		Cancel & Replace	



This page allows you to cancel all or a portion of an order. See [Help](#) for more information. Click here to return to the [Trading Summary](#) or the [Trading Home](#) page.

TRADING DETAIL					
transaction	shares	symbol	securityName	orderStatus	
originalOrderEntryDate					
Order Type: orderType		Duration: duration Limit: limitPrice Stop: stopPrice			
Order #: REFNUM-111234567890		Account: CG 12345		User userID ID:	

QUANTITY	PRICE	EXECUTION
Open: 500	Last Price: lastPrice	Net netMoney
Executed: 0	Bid: bid	Money:
Canceled: 0	Ask: ask	Avg. avgExecutedDailyPrice
Cancel Pend: 0	lastPriceDateTime	Executed Price:
		Order entry exchangeOrderEntryDate Settlement on settlementDate

Open Quantity: 500

Cancel Quantity:

Leave Quantity:

[Next Step >>](#)

[Go To Cancel & Replace](#) [Do Not Cancel](#)

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□ Figure 26 - Partial Cancel Page

From this page the User may decide cancel or part of the unexecuted portion of a specific order. The user may also leave this page without performing any action.


8.2 Cancel/Partial Cancel Order Functionality

1. **Trade Detail table** - A trade detail of the original order is presented to the user.
2. **Open Quantity** - Static text informing the user as to the current Open Quantity on this original order.
3. **Cancel Quantity** - Text entry box that allows the user to enter the unexecuted quantity from the original order that they wish to cancel. The user will not be permitted to enter a quantity higher than or equal to the open quantity.
4. **Leave Quantity** - - Text entry box that allows the user to enter the quantity from the original order that they wish to leave active. The user will not be permitted to enter a quantity higher than or equal to the Open quantity minus the Cancel quantity.
5. **Next Step >>** - This is a button that sends the user to the next appropriate page. The data entries made by the user will be checked for completeness of all required fields. If the data meets the qualifications, the user-entered data is sent to PaineWebber for a second accuracy check. If it passes, the user is taken to the Cancel Recap page. If the trade fails, either at PaineWebber or within the browser, the user will receive an appropriate error message.
6. **Do Not Cancel** - This is a button that returns the user to the Trading Summary page.
7. **Go to Cancel & Replace** - This is a button that takes the user to the Cancel & Replace Page.

8.3 Cancel/Partial Cancel Recap

HELP

Stock Trading
Stock Wizard



Once you are sure the order is correct, enter your Trading Password and click Send Trade. See [Help](#) for more information.

Trade Recap	
Original Order:	
Account:	acctNum
Transaction:	transaction
Security:	symbol
Open Qty:	500
Pending Qty:	0
Executed Qty:	0
Duration:	duration
Order Type:	orderType
Stop Price:	stopPrice
Limit Price:	limitPrice
Qualifiers:	qualifier
This Transaction:	
Transaction:	Cancel
Cancel Quantity:	400
Leave Quantity:	100

DavoT's Canned Data Corp.	
Symbol:	DAVET
Volume:	123456789
Price:	9 255/256
Open:	12 1/2
Bid Price:	9 1/8
Bid Size:	5
Ask Price:	11 7/8
Ask Size:	12
Day's High:	15 3/4
Day's Low:	6 3/4
Change:	-1 1/256
% Change:	10.04
Tick:	↑
Currency:	USD
As of:	11/24/1998
Type:	Stock
Prev. Close:	11
52 Wk High:	20 1/2
52 Wk Low:	6 1/2
P/E Ratio:	27.4
EPS:	1.23
Dividend:	.42
Dividend Date:	12/10/98
Exchange:	NYSE
Yield:	1.22

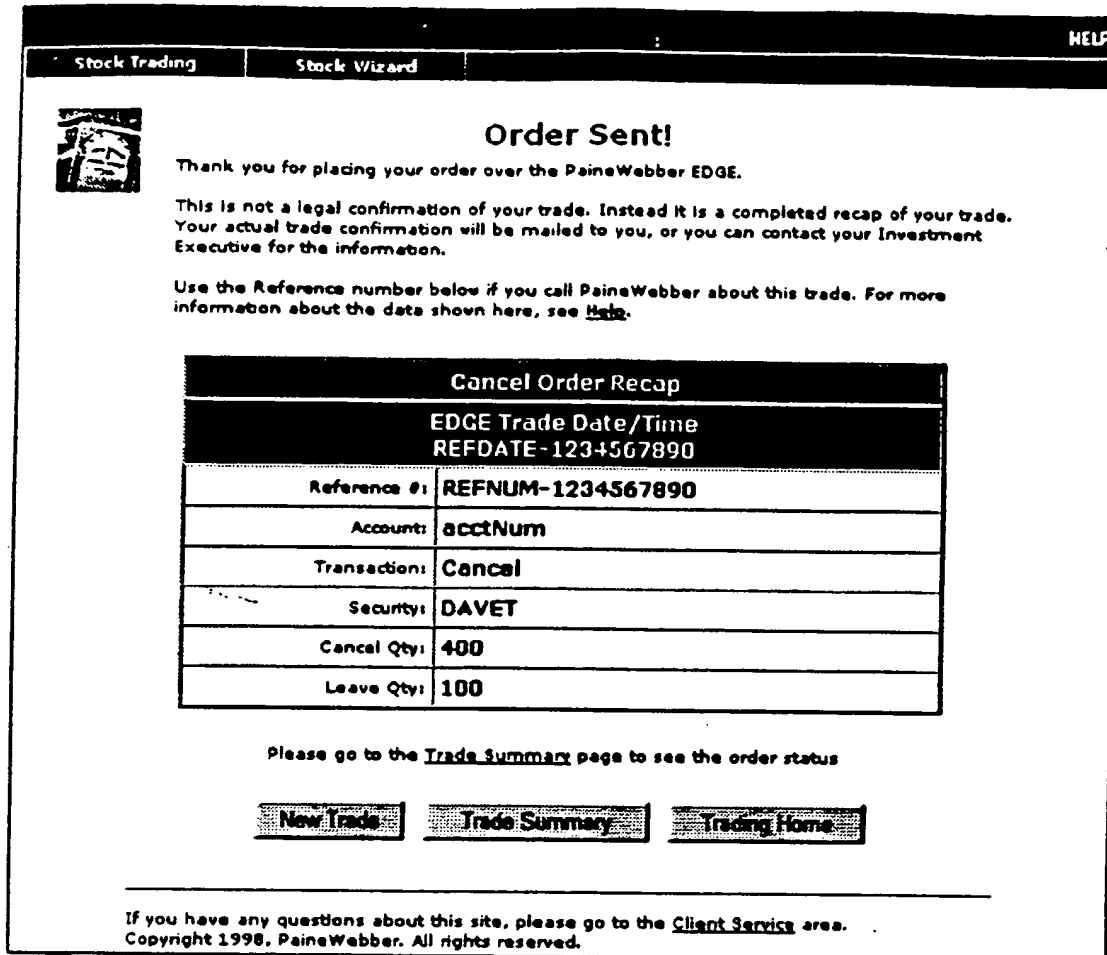
Enter your Trading Password:

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□ Figure 27 - Cancel Recap

8.4 Cancel/Partial Cancel Confirm



Order Sent!

Thank you for placing your order over the PaineWebber EDGE.

This is not a legal confirmation of your trade. Instead it is a completed recap of your trade. Your actual trade confirmation will be mailed to you, or you can contact your Investment Executive for the information.

Use the Reference number below if you call PaineWebber about this trade. For more information about the data shown here, see [Help](#).

Cancel Order Recap	
EDGE Trade Date/Time REFDATE-1234567890	
Reference #:	REFNUM-1234567890
Account:	acctNum
Transaction:	Cancel
Security:	DAVET
Cancel Qty:	400
Leave Qty:	100

Please go to the [Trade Summary](#) page to see the order status

[New Trade](#) [Trade Summary](#) [Trading Home](#)

If you have any questions about this site, please go to the [Client Service](#) area.
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□ Figure 28 – Cancel/Partial Cancel Confirm

8.5 Cancel/Partial Cancel Order Confirmation Functionality

The functionality and look of this page will be the same as the original Order Confirmation page, with the following exceptions.


1. The opening statement will include verbiage to inform the user that the edited order will appear on the Summary after the original order is canceled. If the original order is not cancelable after all, then the edit will not occur. (note: Figure 38 does NOT reflect this verbiage)
2. The recap will show the original order number and will include fields for Quantity Executed, Open Quantity, Cancel Quantity, and Leave Quantity.
3. A statement has been added to encourage the user to check the Trade Summary page for the order status, and includes a link to that page.
4. Buttons appear at the bottom of the page to take the user to New Trade (stock trading page), Trading Summary, or to Trading Home.

8.6 Cancel & Replace Page

HELP

Stock Trading | Stock Wizard

Modify Order | Cancel/Partial Cancel | Cancel & Replace



This page allows you to cancel the unexecuted portion of your order and send a replacement order. See [Help](#) for more information. Click here to return to the [Trading Summary](#) or the [Trading Home](#) page.

TRADING DETAIL

transaction	shares	symbol	orderStatus
originalOrderEntryDate			

Order Type: orderType Duration: duration Limit: limitPrice Stop: stopPrice
 Order #: REFNUM-111234567890 Account: CG 12345 User userID
 ID:

QUANTITY	PRICE	EXECUTION
Open: 500	Last Price: lastPrice	Net netMoney
Executed: 0		Money:
Canceled: 0		Avg. avgExecutedDailyPrice
Cancel Pend: 0	lastPriceDateTime	Executed Price:
		Order entry exchangeOrderEntryDate
		Settlement on settlementDate

ENTER REPLACEMENT ORDER

Account: CG 12345 Transaction: transaction Symbol: symbol

Duration: Shares:

Order Type	Stop Price	Limit Price	Qualifier
<input checked="" type="radio"/> Market			<input type="text" value="None"/>
<input type="radio"/> Limit		<input type="text"/>	<input type="text" value="None"/>
<input type="radio"/> Stop	<input type="text"/>		<input type="text" value="None"/>
<input type="radio"/> Stop/Limit	<input type="text"/>	<input type="text"/>	<input type="text" value="None"/>

Is this transaction a result of a recommendation by your Investment Executive or based upon information supplied by PaineWebber or its employees?

☐ Yes ☐ No

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□ Figure 29 - Cancel & Replace Page

8.7 Cancel & Replace Functionality

1. Trade Detail table - A trade detail of the original order is presented to the user.

2. **Enter Replacement Order** – This section has the same functionality as the original Order Entry page, with the exception that the user may not modify the Account number, the Transaction Type, or the Equity Symbol.
3. **Next Step >>** – This is a button, which sends the user to the next appropriate page. The data entries made by the user will be checked for completeness of all required fields. If the data meets the qualifications, the user entered data is sent to PaineWebber for a second accuracy check. If it passes, the user is taken to the Confirmation page. If the trade fails, either at PaineWebber or within the browser, the user will receive an appropriate error message.
4. **Do Not Cancel** – This is a button that takes the user to the Trading Summary page.
5. **Partial Cancel** – This is a button, which takes the user to the Partial Cancel Page.

8.8 Cancel & Replace Recap Page

Stock Trading		Stock Wizard		HELP																																																																																																						
<p>Once you are sure the order is correct, enter your Trading Password and click Send Trade. See Help for more information.</p>																																																																																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="background-color: #f2f2f2;">Trade Recap</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="background-color: #f2f2f2;">Original Order:</td> </tr> <tr><td>Account:</td><td>acctNum</td></tr> <tr><td>Transaction:</td><td>transaction</td></tr> <tr><td>Security:</td><td>symbol</td></tr> <tr><td>Open Qty:</td><td>500</td></tr> <tr><td>Pending Qty:</td><td>0</td></tr> <tr><td>Executed Qty:</td><td>0</td></tr> <tr><td>Duration:</td><td>duration</td></tr> <tr><td>Order Type:</td><td>orderType</td></tr> <tr><td>Stop Price:</td><td>stopPrice</td></tr> <tr><td>Limit Price:</td><td>limitPrice</td></tr> <tr><td>Qualifiers:</td><td>qualifier</td></tr> <tr> <td colspan="2" style="background-color: #f2f2f2;">This Transaction:</td> </tr> <tr><td>Transaction:</td><td>Cancel/Replace</td></tr> <tr><td>Cancel Quantity:</td><td>0</td></tr> <tr><td>Leave Quantity:</td><td>0</td></tr> <tr><td>Shares:</td><td>850</td></tr> <tr><td>Duration:</td><td>DAY</td></tr> <tr><td>Order Type:</td><td>StopLimit</td></tr> <tr><td>Stop Price:</td><td>99</td></tr> <tr><td>Limit Price:</td><td>101</td></tr> <tr><td>Qualifiers:</td><td>DNR</td></tr> </tbody> </table>		Trade Recap		Original Order:		Account:	acctNum	Transaction:	transaction	Security:	symbol	Open Qty:	500	Pending Qty:	0	Executed Qty:	0	Duration:	duration	Order Type:	orderType	Stop Price:	stopPrice	Limit Price:	limitPrice	Qualifiers:	qualifier	This Transaction:		Transaction:	Cancel/Replace	Cancel Quantity:	0	Leave Quantity:	0	Shares:	850	Duration:	DAY	Order Type:	StopLimit	Stop Price:	99	Limit Price:	101	Qualifiers:	DNR	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="background-color: #f2f2f2;">DaveT's Canned Data Corp.</th> </tr> </thead> <tbody> <tr> <td>Symbol:</td> <td>DAVET</td> <td>Volume:</td> <td>123456789</td> </tr> <tr> <td>Price</td> <td>9 255/256</td> <td>Open</td> <td>12 1/2</td> </tr> <tr> <td>Bid Price</td> <td>9 1/8</td> <td>Bid Size</td> <td>5</td> </tr> <tr> <td>Ask Price</td> <td>11 7/8</td> <td>Ask Size</td> <td>12</td> </tr> <tr> <td>Day's High</td> <td>15 3/4</td> <td>Day's Low</td> <td>6 3/4</td> </tr> <tr> <td>Change</td> <td>-1 1/256</td> <td>% Change</td> <td>10.04</td> </tr> <tr> <td>Tick</td> <td>↑</td> <td>Currency</td> <td>USD</td> </tr> <tr> <td colspan="4">As of: 11/24/1998</td> </tr> <tr> <td>Type</td> <td>Stock</td> <td>Prev. Close</td> <td>11</td> </tr> <tr> <td>52 Wk High</td> <td>20 1/2</td> <td>52 Wk Low</td> <td>6 1/2</td> </tr> <tr> <td>P/E Ratio</td> <td>27.4</td> <td>EPS</td> <td>1.23</td> </tr> <tr> <td>Dividend</td> <td>.42</td> <td>DividendDate</td> <td>12/10/98</td> </tr> <tr> <td>Exchange</td> <td>NYSE</td> <td>Yield</td> <td>1.22</td> </tr> </tbody> </table>			DaveT's Canned Data Corp.				Symbol:	DAVET	Volume:	123456789	Price	9 255/256	Open	12 1/2	Bid Price	9 1/8	Bid Size	5	Ask Price	11 7/8	Ask Size	12	Day's High	15 3/4	Day's Low	6 3/4	Change	-1 1/256	% Change	10.04	Tick	↑	Currency	USD	As of: 11/24/1998				Type	Stock	Prev. Close	11	52 Wk High	20 1/2	52 Wk Low	6 1/2	P/E Ratio	27.4	EPS	1.23	Dividend	.42	DividendDate	12/10/98	Exchange	NYSE	Yield	1.22
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<p>Enter your Trading Password: <input style="width: 150px;" type="text"/></p> <p style="text-align: center;"> <input type="button" value="Previous"/> <input type="button" value="Cancel Order"/> <input type="button" value="Send Trade"/> </p>																																																																																																										
<p>If you have any questions about this site, please go to the Client Service area. Copyright 1998, PaineWebber. All rights reserved.</p>																																																																																																										

□ Figure 30 - Cancel & Replace Recap Page

8.9 Cancel & Replace Recap Functionality

The page will primarily consist of two visual static text tables that appear side by side.

1. **Real-Time Quote table:** - The user will be given a real-time quote for the trade symbol they had previously entered. The title field within the box will be the Symbol Description. Additional fields shown will be Symbol, Bid, Ask, Last, Change, Volume, Open, Days High, Days Low, Tick, Security Type, 52 Week High, 52 Week Low, Previous Close, P/E Ratio, EPS, Exchange, and As of. As of will show the date and time of the quote (Y2k compliant date).
2. **Trade Recap table:** - This table is made up of two sub-tables, Original Order and This Transaction. *The Original Order Table* will reiterate the user-entered trade data for the original Order. The fields to be included are Order #, Account #, Transaction, Symbol, Shares, Duration, Order Type, Limit Price, Stop Price, and Qualifiers. *The This Transaction table* will reiterate the user-entered trade data for the Replacement Order. The fields to be included are Account #, Transaction, Symbol, Shares, Duration, Order Type, Limit Price, Stop Price, and Qualifiers.

Additional elements found on this page are:


1. **Enter your Trading Password:** - This is an alphanumeric text entry field that will allow the user to enter their PaineWebber assigned trading password. This field will have a maximum of 15 characters.
2. **Previous Step:** - This is a button. This allows the user to return to the first page of Stock Trading. All data that had been previously entered into that page will appear in their appropriate fields. The user may then edit and/or resubmit, or cancel at this point.
3. **Cancel Order:** - This is a button. This gives the user the option to cancel the trade request at this point. The user is then returned to the Trading Home page.
4. **Send Trade** - This is a button. When pressed, the trade data is sent to PaineWebber for verification and execution. If it fails, the user will receive a message to that effect, if it succeeds, then the trade is executed. Once submitted, it will be posted to the user's Trade Summary page so that it can be seen

8.10 Cancel & Replace Confirmation Page

Stock Trading

Stock Wizard

HELP



Order Sent!

Thank you for placing your order over the PaineWebber EDGE.

This is not a legal confirmation of your trade. Instead it is a completed recap of your trade. Your actual trade confirmation will be mailed to you, or you can contact your Investment Executive for the information.

Use the Reference number below if you call PaineWebber about this trade. For more information about the data shown here, see [Help](#).

Trade Recap			
EDGE Trade Date/Time			
11/12/98			
Reference #:	ORDER_REF1234567890		
Account:	CG 12345	Duration:	GTC
Transaction:	SELL	Order Type:	Stop/Limit
Security:	RTRSY	Qualifiers:	DNI
Shares:	250	Limit Price:	60
Executed Price:		Stop Price:	65

Please go to the [Trade Summary](#) page to see the order status

[New Trade](#)[Trade Summary](#)[Trading Home](#)

If you have any questions about this site, please go to the [Client Service](#) area.
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□ Figure 31 - Cancel & Replace Confirmation Page

8.11 Cancel & Replace Confirmation Page Functionality

The functionality and look of this page will be the same as the original Order Confirmation page. A statement has been added to encourage the user to check the Trade Summary page for the order status, and includes a link to that page.

9 Demo Pages

There will be demo trades for each type of trading:

- **Stock Trade**
- **Stock Trade Wizard**
- **Mutual Fund Trade**
- **Mutual Fund Trade Wizard**

The demo pages will be executed using active pages within the site so that the user can walk through the actual trading process - short of making an actual trade. The quotes used in the demo process will be delayed quotes, rather than real-time quotes.

Links to the demo pages are on the Trading Home page (section 3). A link to the demo will appear on the navigation bar for non-Edge Trading clients¹⁴.

¹⁴ To be decided

10 Error Messages

10.1 When Messages are Triggered

Trading will generate feedback to the user at two times:

1. While the trade is being composed. That is, as the user creates the trade by filling in data and making choices on the trade screens. For instance, when the user is using the Stock Wizard there will be error messages available to help correct problems.
2. Once the trade is submitted to PaineWebber. When the trade passes from the web-based front-end to PaineWebber's systems the trade will be verified and error messages can be generated. Messages generated by PaineWebber are not within the scope of this document.

10.2 Smart Error Checking

The objective of error checking in EDGE trading is to prevent simple errors at the browser, then check for more complex errors at PaineWebber's host system. In any event, the user will receive a "smart" error message that gives direction as to the cause of the error. In some cases this direction will be less explicit due to PaineWebber security and policy requirements.

10.3 Error Types

The following sub-sections will outline the errors and the conditions that trigger them. This document will only outline those errors generated by the Edge2 Trading software and is not inclusive of errors generated by PaineWebber.

10.4 Change Initial/Trading Password Errors

Both pages will supply the same inexplicit message:

Your password change request was unsuccessful. Please retry your change request. If this continues to be a problem, please call the PaineWebber EDGE® Service Center at 1-888-2PW-EDGE.

The service center is open Monday through Friday, 7:30AM - 8PM EST and Saturday through Sunday, 8AM - 4PM EST.

10.5 Stock Trading Entry Page Errors

Errors will be generated should the user input invalid information, or not supply information within a mandatory field. The conditions that will trigger an error and the messages that will be supplied are:

1. Symbol Field Empty - *You need to supply a symbol.*
2. Shares Field Empty or a negative number - *You must enter the number of Shares you wish to trade*
3. Shares field contains decimals or fractions - *Decimals and fractions are not permitted in the Shares field for Stock trades*
4. User has chosen an Order Type of Market, and a Duration other than Day - *A Market order can only have a duration of Day*
5. User has chosen a Market Order and entered a Limit Price. - *You cannot enter a Limit Price for a Market Order.*

6. User has chosen a Market Order and entered a Stop Price. – *You cannot enter a Stop Price for a Market Order.*
7. User has chosen a Limit Order and not entered a Limit Price. – *You must supply a Limit Price for a Limit Order.*
8. User has chosen a Limit Order and entered a Stop Price. – *You cannot enter a Stop Price for a for a Limit Order.*
9. User has chosen a Limit Order and entered a Limit Price containing decimals – *Decimals are not permitted in price fields for Stock Trades.*
10. User has chosen a Stop Order and not entered a Stop Price. – *You must supply a Stop Price for a Stop Order*
11. User has chosen a Stop Order and entered a Limit Price. – *You cannot enter a Limit Price for a Stop Order.*
12. User has chosen a Stop Order and entered a Stop Price containing decimals – *Decimals are not permitted in price fields for Stock Trades.*
13. User has chosen a Stop Order and Duration of FOK - *You cannot use the FOK or IOC qualifiers with a Stop Order.*
14. User has chosen a Stop Order and Duration of IOC - *You cannot use the FOK or IOC qualifiers with a Stop Order.*
15. User has chosen a Stop/Limit Order and not entered a Limit Price. – *You must supply a Limit Price for a Stop/Limit Order.*
16. User has chosen a Stop/Limit Order and not entered a Stop Price. – *You must supply a Stop Price for a Stop/Limit Order.*
17. User has chosen a Stop/Limit Order and entered a Limit Price containing decimals – *Decimals are not permitted in price fields for Stock Trades.*
18. User has chosen a Stop/Limit Order and entered a Stop Price containing decimals – *Decimals are not permitted in price fields for Stock Trades.*
19. User has chosen a Stop/Limit Order and Duration of FOK - *You cannot use the FOK or IOC qualifiers with a Stop Order.*
20. User has chosen a Stop/Limit Order and Duration of IOC - *You cannot use the FOK or IOC qualifiers with a Stop Order.*
21. User has chosen a Buy transaction, with an order type of Stop/Limit and entered a Stop Price greater than the Limit Price. – *Stop/Limit Buy Transactions must have a Limit Price that is greater than or equal to the Stop Price.*
22. User had chosen a Sell Transaction, with an order type of Stop/Limit and entered a Limit Price greater than the Stop Price - *Stop/Limit Sell Transactions must have a Limit Price that is less than or equal to the Stop Price.*

10.6 Stock Trading Recap Page Errors

Errors will be generated should the user input invalid information, or not supply information within a mandatory field. The conditions that will trigger an error and the messages that will be supplied are:

User enters an incorrect trading Password – *The password you have entered is incorrect. Please enter a valid password.*

10.7 Stock Trading Wizard Errors

Errors will be generated should the user input invalid information, or not supply information within a mandatory field. The conditions that will trigger an error and the messages that will be supplied are:

1. Symbol Field Empty- *you need to supply a symbol.*
2. Shares Field Empty or a negative number - *You must enter the number of Shares you wish to trade*
3. Shares field contains decimals or fractions - *Decimals and fractions are not permitted in the Shares field for Stock trades*
4. User has chosen an Order Type of Market, and a Duration other than Day – *A Market order can only have a duration of Day*
5. User has chosen a Market Order and entered a Limit Price. – *You cannot enter a Limit Price for a Market Order.*
6. User has chosen a Market Order and entered a Stop Price. – *You cannot enter a Stop Price for a Market Order.*
7. User has chosen a Limit Order and not entered a Limit Price. – *You must supply a Limit Price for a Limit Order.*
8. User has chosen a Limit Order and entered a Stop Price. – *You cannot enter a Stop Price for a for a Limit Order.*
9. User has chosen a Limit Order and entered a Limit Price containing decimals – *Decimals are not permitted in price fields for Stock Trades.*
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14. User has chosen a Stop Order and Duration of IOC - *You cannot use the FOK or IOC qualifiers with a Stop Order.*
15. User has chosen a Stop/Limit Order and not entered a Limit Price. – *You must supply a Limit Price for a Stop/Limit Order.*
16. User has chosen a Stop/Limit Order and not entered a Stop Price. – *You must supply a Stop Price for a Stop/Limit Order.*
17. User has chosen a Stop/Limit Order and entered a Limit Price containing decimals – *Decimals are not permitted in price fields for Stock Trades.*
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19. User has chosen a Stop/Limit Order and Duration of FOK - *You cannot use the FOK or IOC qualifiers with a Stop Order.*

20. User has chosen a Stop/Limit Order and Duration of IOC - *You cannot use the FOK or IOC qualifiers with a Stop Order.*
21. User has chosen a Buy transaction, with an order type of Stop/Limit and entered a Stop Price greater than the Limit Price. - *Stop/Limit Buy Transactions must have a Limit Price that is greater than or equal to the Stop Price.*
22. User had chosen a Sell Transaction, with an order type of Stop/Limit and entered a Limit Price greater than the Stop Price - *Stop/Limit Sell Transactions must have a Limit Price that is less than or equal to the Stop Price.*

10.8 Stock Order Confirmation Page Errors

No Edge2 software errors are generated on this page.

10.9 Cancel/Partial Cancel Page Errors

User presses Next Step button without entering values in the Cancel Quantity field. - *You must enter the quantity you wish to cancel.*

User presses Next Step button without entering values in Leaves Quantity field. - *You must enter the quantity you wish to leave on this order.*

The data entered by the user does not equal the Open Quantity value. *The total of the Cancel Quantity and Leaves Quantity must equal the Open Quantity.*

10.10 Cancel/Replace Errors

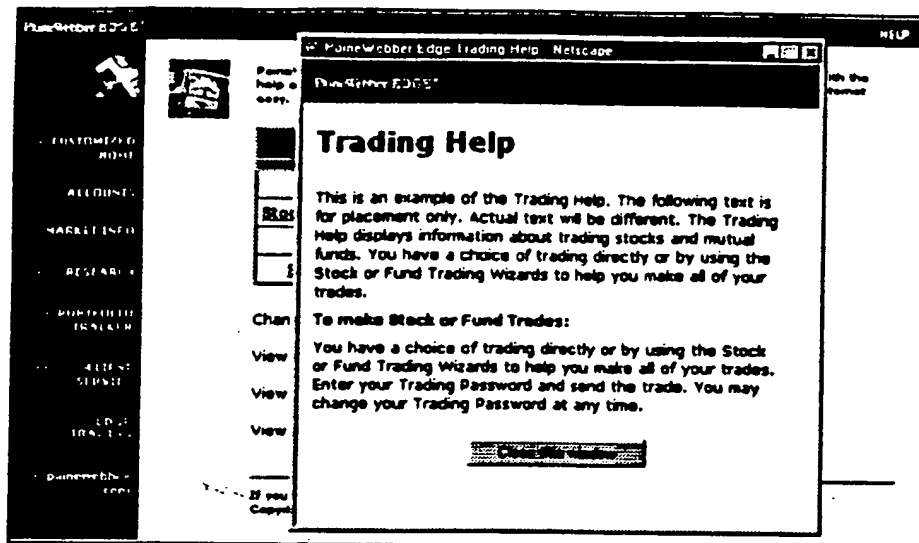
This page will follow the same Error-checking as the Stock Trade entry page.

10.11 Cancel Recap

Both instances of this page will do a simple check of the password to insure existence before the trade is sent. Actual checking will be done during post-processing.

11 Help System

11.1 Help System



□ Figure 32 - Help Page

11.2 Help System Content

EDGE trading will need a help system, which should consist of the following:

1. Glossary of Terms. Every term that appears within the trading section will be defined. The terms will appear in a pop-up help box. When the user clicks a term the help window opens to that position. These will also be an index of all terms.
2. Process Help. There will also be a simple "how to" help for each trading page. This is separate from the Glossary of Terms and will be implemented in a separate window.
3. Frequently Asked Questions (FAQ). Reality recommends that a FAQ page be created for both fund and stock trading. The content is to be determined, but the objective is to cut down on the tech support calls that trading will engender.

11.3 Help System Authoring

Help will need to be authored by a joint Reality-PaineWebber team, as was done in the original EDGE release. The tasks, schedule, and team members are to be determined.

10 Error Messages

10.1 When Messages are Triggered

Trading will generate feedback to the user at two times:

1. While the trade is being composed. That is, as the user creates the trade by filling in data and making choices on the trade screens. For instance, when the user is using the Stock Wizard there will be error messages available to help correct problems.
2. Once the trade is submitted to PaineWebber. When the trade passes from the web-based front-end to PaineWebber's systems the trade will be verified and error messages can be generated. Messages generated by PaineWebber are not within the scope of this document.

10.2 Smart Error Checking

The objective of error checking in EDGE trading is to prevent simple errors at the browser, then check for more complex errors at PaineWebber's host system. In any event, the user will receive a "smart" error message that gives direction as to the cause of the error. In some cases this direction will be less explicit due to PaineWebber security and policy requirements.

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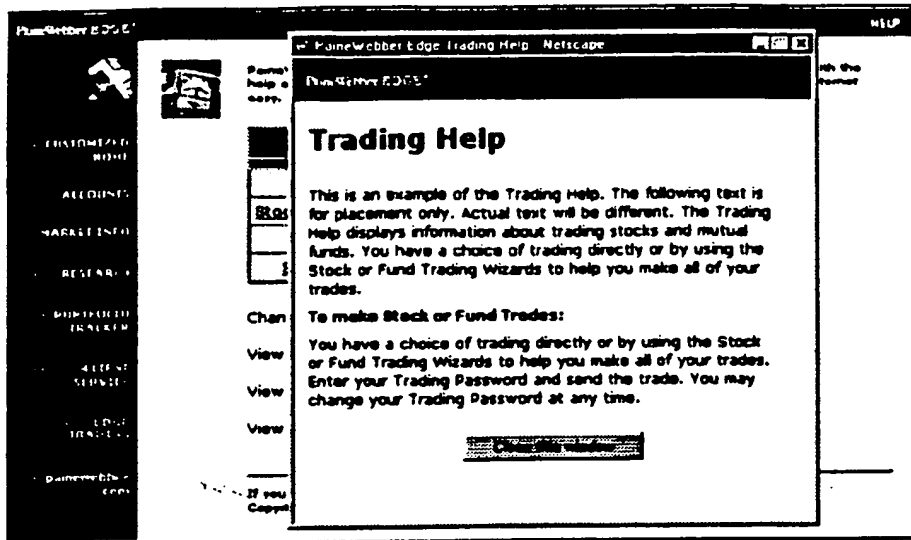
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